

Fig. 2

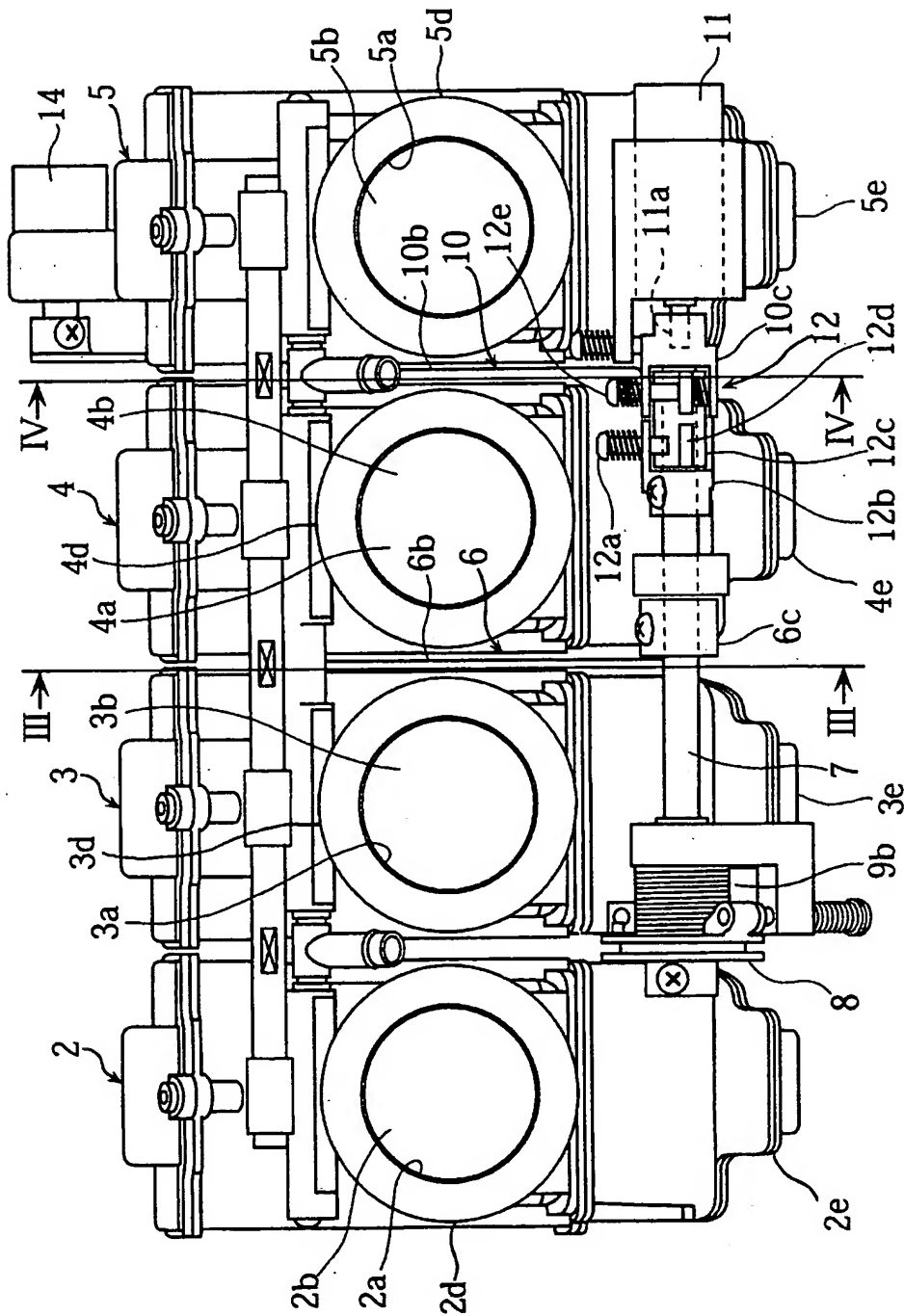


Fig. 3

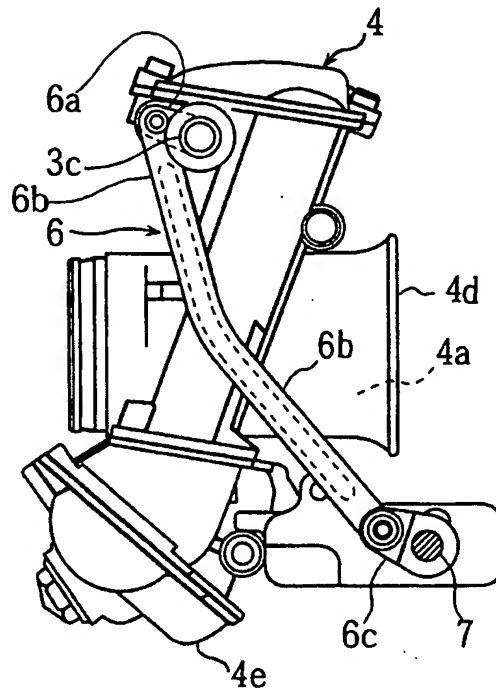


Fig. 4

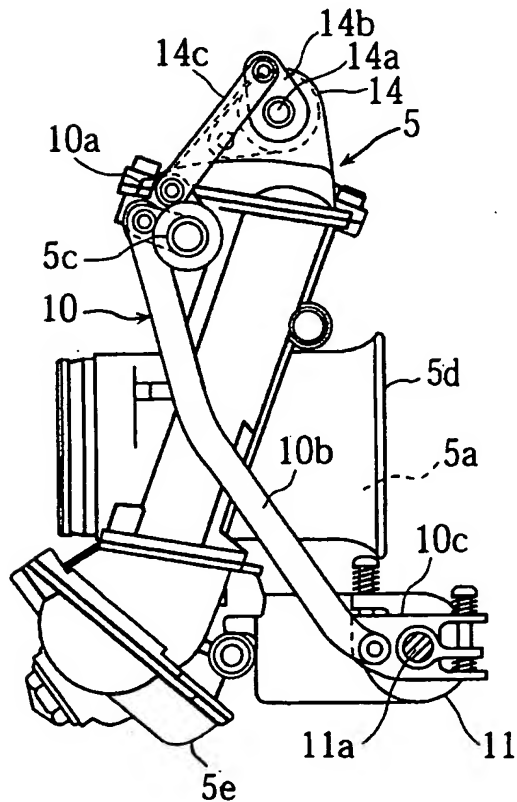


Fig. 5

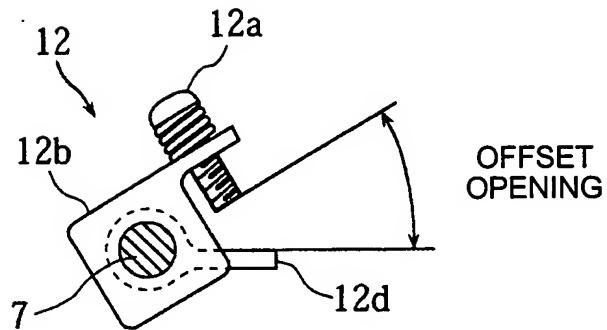


Fig. 6

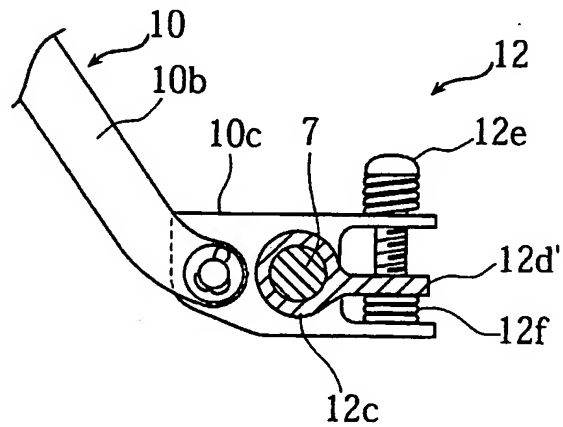


Fig. 7

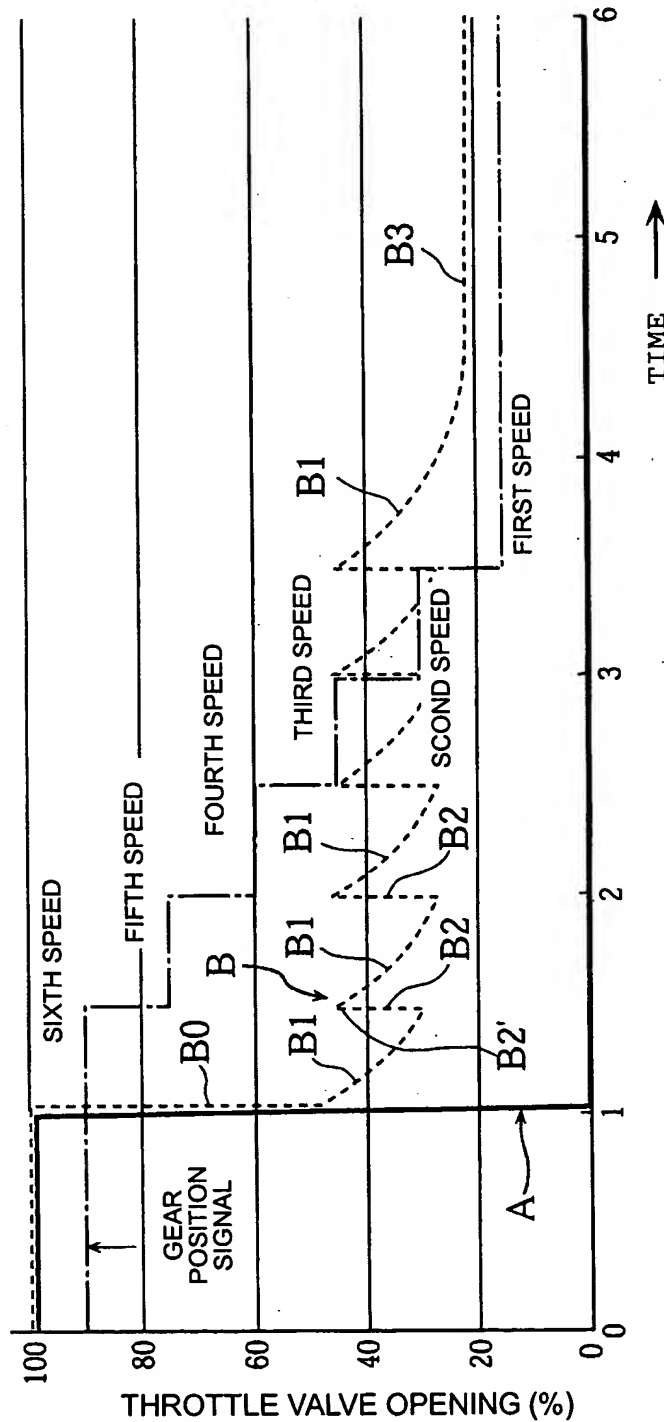


Fig. 8

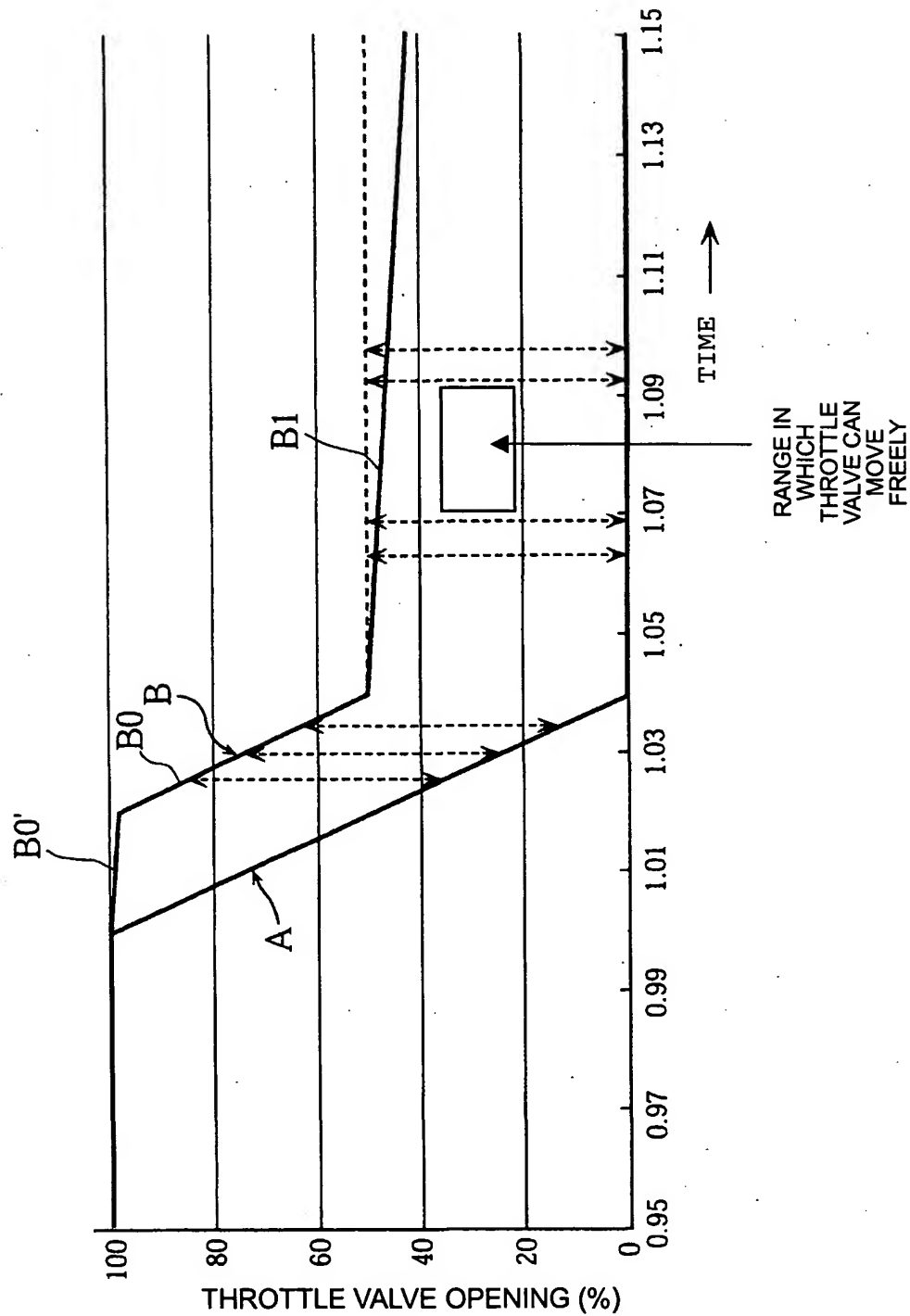


Fig. 9

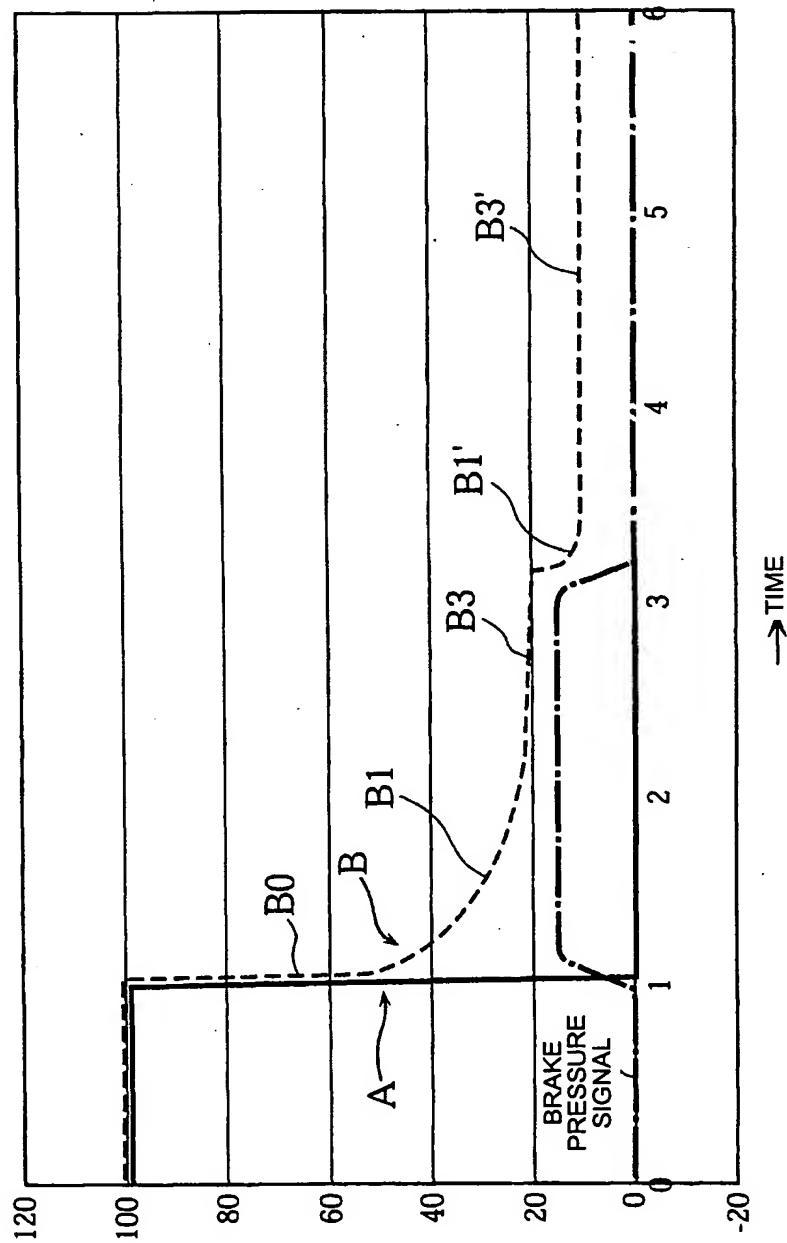


Fig. 10

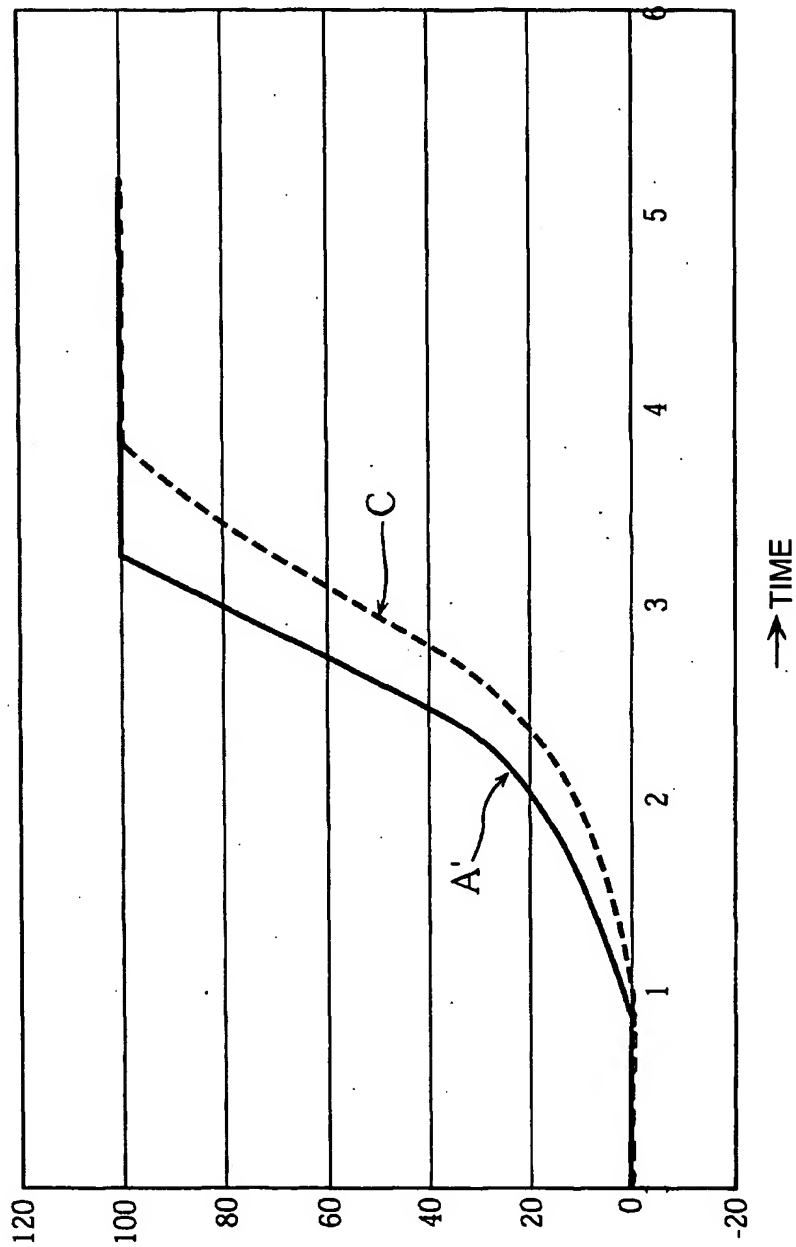


Fig. 11

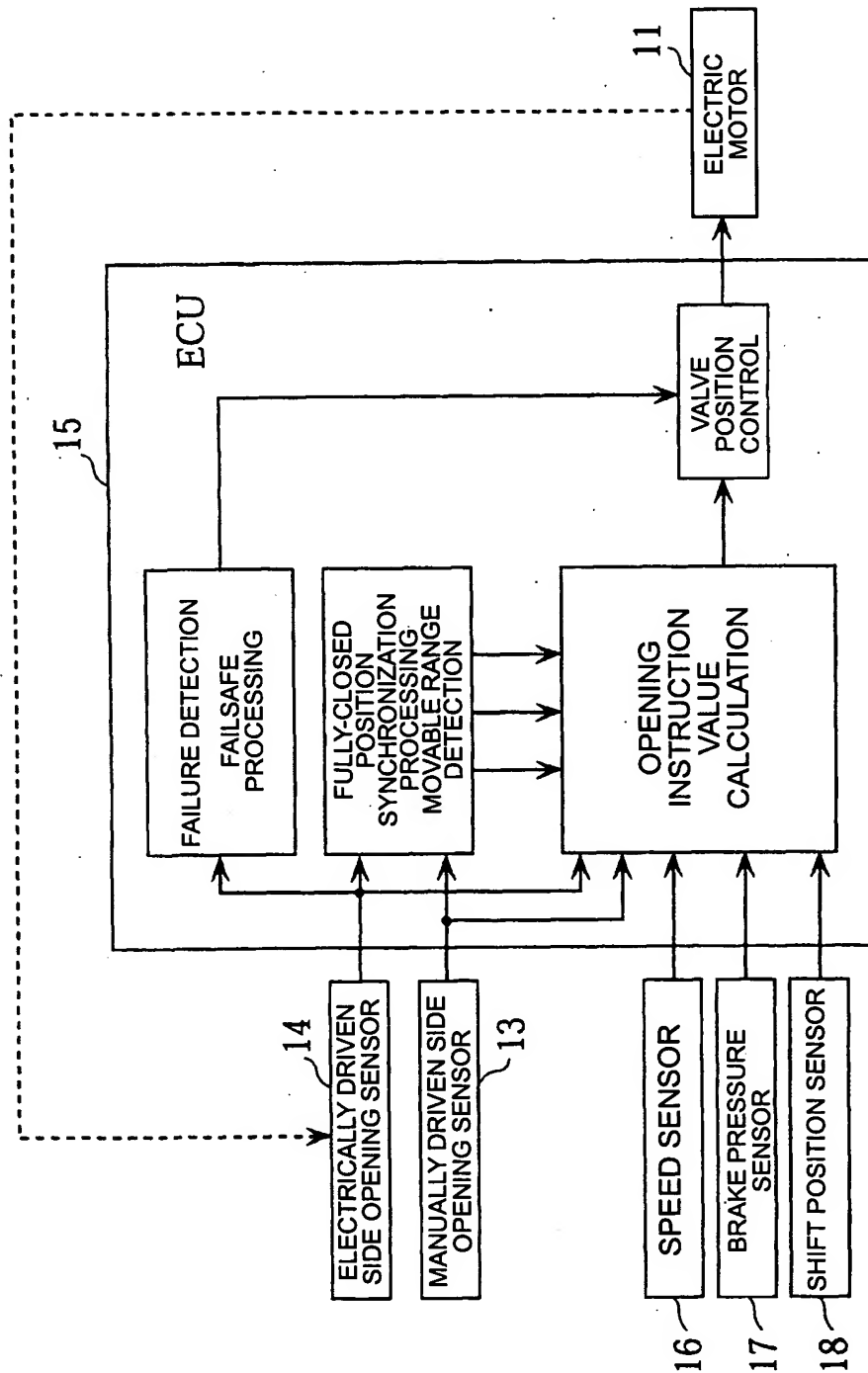
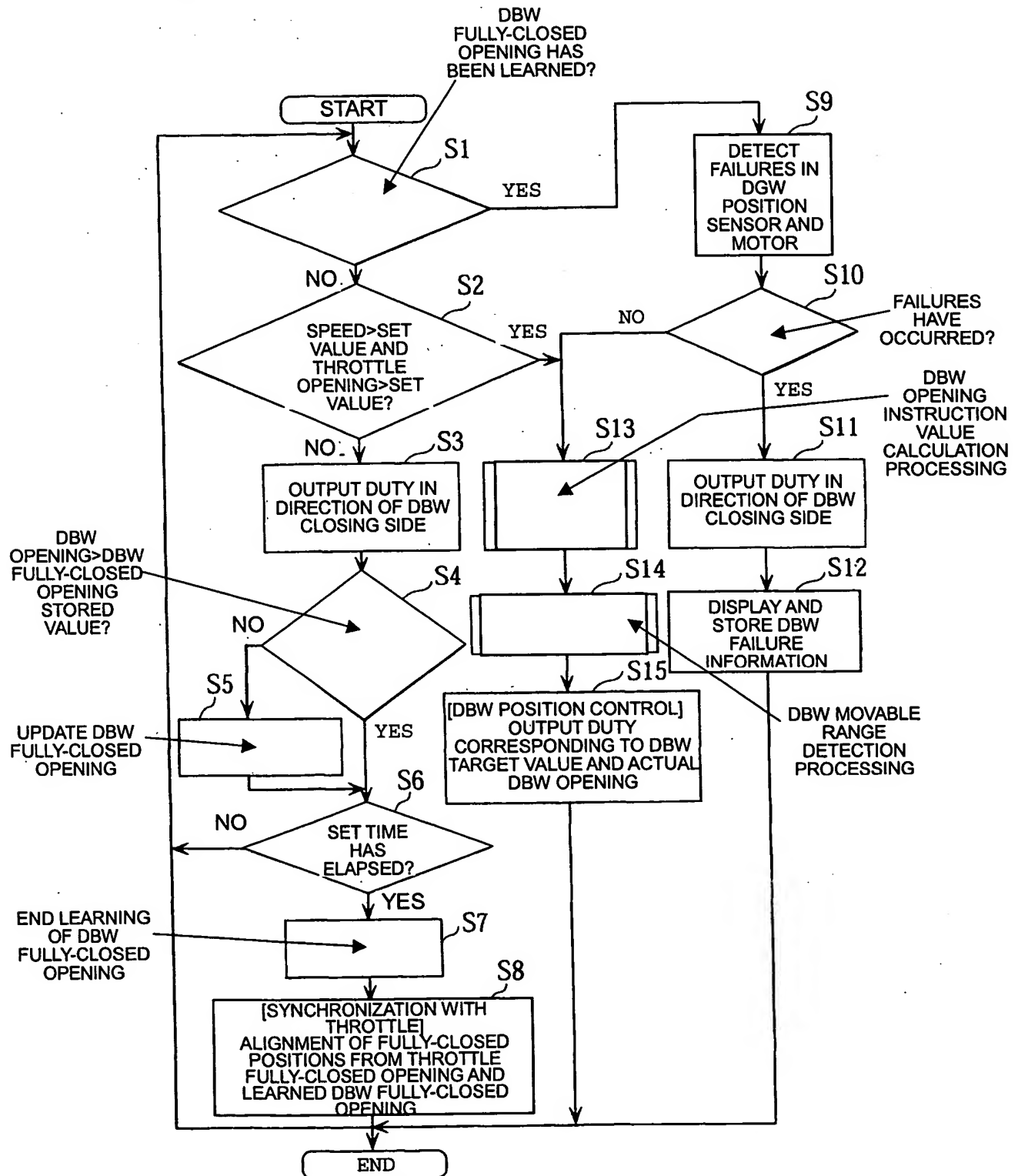


Fig. 12



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graph TD
    Start([START PROCESSING]) --> S21{NEUTRAL?}
    S21 -- YES --> S30[SET SHIFT-DOWN TIME OPENING SET VALUE AS DBW INSTRUCTION VALUE]
    S21 -- NO --> S22{SPEED < SET VALUE?}
    S22 -- YES --> S30
    S22 -- NO --> S23{SHIFT-DOWN?}
    S23 -- YES --> S30
    S23 -- NO --> S24{BRAKE IS BEING APPLIED?}
    S24 -- YES --> S30
    S24 -- NO --> S25{THROTTLE OPENING < OPENING SET VALUE?}
    S25 -- YES --> S26{THROTTLE IS BEING OPENED?}
    S25 -- NO --> S33[SET OPENING SET VALUE AS DBW INSTRUCTION VALUE]
    S26 -- YES --> S27{BRAKE IS BEING APPLIED?}
    S26 -- NO --> S33
    S27 -- YES --> S34[SET THE SAME OPENING AS THROTTLE AS DBW INSTRUCTION VALUE]
    S27 -- NO --> S33
    S30 --> S32[SET THE SAME OPENING AS THROTTLE AS DBW INSTRUCTION VALUE]
    S32 --> S29[SET THE SAME OPENING AS THROTTLE AS DBW INSTRUCTION VALUE]
    S33 --> S36{SET VALUE OBTAINED BY FILTERING THROTTLE OPENING AS DBW INSTRUCTION VALUE}
    S34 --> S36
    S32 --> S36
    S29 --> S36
    S36 -- YES --> S37[REPLACE DBW INSTRUCTION VALUE WITH DBW FULLY-CLOSED LEARNED VALUE]
    S36 -- NO --> S38{CALCULATED DBW INSTRUCTION VALUE > DBW FULLY-OPENED OPENING LEARNED VALUE?}
    S38 -- YES --> S39[REPLACE DBW INSTRUCTION VALUE WITH DBW FULLY-OPENED LEARNED VALUE]
    S38 -- NO --> S40{CALCULATED DBW INSTRUCTION VALUE < DBW FULLY-CLOSED OPENING LEARNED VALUE?}
    S40 -- YES --> S41[REPLACE DBW INSTRUCTION VALUE WITH DBW FULLY-CLOSED LEARNED VALUE]
    S40 -- NO --> End([END PROCESSING])
    S37 --> End
    S39 --> End
    S41 --> End
    
```

Fig. 14

